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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,626	08/12/2003	Arra E. Avakian	10017135-1	1128

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FORT COLLINS, CO 80527-2400

EXAMINER
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PANTOLIANO JR, RICHARD

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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05/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/640,626

Applicant(s)

AVAKIAN ET AL.

Examiner

Richard Pantoliano Jr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2,4-9,11-16 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4-9,11-16 and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119


- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20070411.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

## DETAILED ACTION

### *Response to Amendment*

1. This Office Action is filed in response to amendments filed on **27 April 2007** in regard to Application# **10/640,626**. **Claims 2, 4-9, 11-16, and 18-22** are currently pending and have been considered below.

### *Continued Examination Under 37 CFR 1.114*

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **27 April 2007** has been entered.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 4, 11, and 18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. As per **Claim 4**, this claim is listed as being dependent on cancelled **Claim 3**. Since the limitations of **Claim 3** appear to have been incorporated into **Claim 2**,

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Examiner will consider **Claim 4** as being dependent on **Claim 2** for the purpose of examination.

6. As per **Claim 11**, this claim is listed as being dependent on cancelled **Claim 10**.

Since the limitations of **Claim 10** appear to have been incorporated into **Claim 9**,

Examiner will consider **Claim 11** as being dependent on **Claim 9** for the purpose of examination.

7. As per **Claim 18**, this claim is listed as being dependent on cancelled **Claim 17**.

Since the limitations of **Claim 17** appear to have been incorporated into **Claim 16**,

Examiner will consider **Claim 18** as being dependent on **Claim 16** for the purpose of examination.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 2, 4-9, 11-16, and 18-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel et al (US Pat: 6,314,558), hereinafter Angel, in view of Abrams et al (M. Abrams, et al. World Wide Web: Beyond The Basics. Prentice Hall, 1998), hereafter Abrams.

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10. As per **Claim 2**, Angel discloses the invention substantially as claimed including a method for execution by at least one processor, the method comprising:

a) selecting at least one method of a class for instrumentation (Col. 22, lines 15-25 and Col. 20, lines 24-34);

b) inserting instrumentation code in a byte code representation of the selected at least one method without modifying a source code of the selected at least one method by generating a wrapper method that contains the instrumentation code, wherein the instrumentation code comprises byte codes (Col. 20, lines 14-23; Col. 22, line 26 – Col. 23, lines 30; and Col. 26, lines 14-31) (A byte code for a wrapper is generated and the calling method is instrumented to access the wrapper, thereby meeting the claim limitation);

c) executing the byte codes during execution of the at least one method (col. 21, lines 25-64); and

d) generating a call, by the executed byte codes, to an interface wherein the call comprises information regarding the instrumented at least one method (Col. 19, line 58 – Col. 20, line 13).

11. Angel does not explicitly teach wherein the generating of a wrapper contains a call to the byte code representation of the at least one method. Angel teaches only that wrappers are generated for native method calls (Col. 26, lines 14-31).

12. Abrams teaches wherein Java is used to implement an operating system (OS), thereby making all native code accessible to applications implemented as byte code within the Java OS (pg. 3, para. 2-6 and Figure 2).

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13. It would have been obvious to one of ordinary skill in the art at the time of invention would have modified the teachings of Angel with the teachings of Abrams. One would have been motivated by the fact that using an operating system written entirely in Java would eliminate the overhead of the host operating system, thereby allowing for an accurate measure of the performance of the instrumented byte code application (Angel; Col. 16, lines 37-56 and Abrams; pg. 4, "Advantages of JavaOS" section).

14. As per **Claim 4**, Angel further teaches generating a wrapper method comprises:

a) renaming the at least one method from an original name to a new name (Col. 26, lines 14-31);

b) creating a wrapper method with the original name (Col. 3, lines 48-59 and Col. 26, lines 14-31) (Byte code with the name of the native version of the method is created and instrumented to allow access to the native method, thereby meeting this claim limitation);

c) inserting byte codes into the wrapper method that when executed generate the call to the interface (Col. 26, lines 14-31) (Byte code with the name of the native version of the method is created and instrumented to allow access to the native method, thereby meeting this claim limitation); and

d) inserting byte codes into the wrapper method that when executed call the renamed at least one method (Col. 26, lines 14-31).

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15. As per **Claim 5**, Angel further teaches wherein generating a wrapper method further comprises setting a flag of the renamed at least one method to private (Col. 26, lines 14-31) (The step of “adding the name as a private native method” meets this claim limitation).

16. As per **Claim 6**, Angel further teaches wherein the selecting at least one method comprises selecting at least one method of a class for instrumentation when the class is being loaded by a java virtual machine (JVM) for execution by the JVM (Col. 19, lines 38-57 and Col. 20, lines 24-34).

17. As per **Claim 7**, Angel further teaches wherein the selecting at least one method comprises selecting at least one method of a class for instrumentation prior to execution of the class by a java virtual machine (JVM) (Col. 19, lines 38-57; Col. 20, lines 24-34 and Col. 21, line 65 – Col. 22, line 14).

18. As per **Claim 8**, Angel further teaches wherein further comprising monitoring the at least one method using the information regarding the instrumented at least one method (Col. 21, lines 7-19; Col 23, lines 56-59 and Col. 24, lines 12-16).

19. As per **Claims 9, 11-15**, these claims are directed to the system implementing the methods of **Claims 2, 4-8** respectively, and are therefore rejected for the same reasoning as **Claims 2, 4-8** as specified above.

20. As per **Claims 16, 18-22**, these claims are directed to the system implementing the methods of **Claims 2, 4-8** respectively, and are therefore rejected for the same reasoning as **Claims 2, 4-8** as specified above.

***Response to Arguments***

21. Applicant's arguments with respect to **2, 4-9, 11-16, and 18-22** have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Pantoliano Jr whose telephone number is (571) 270-1049. The examiner can normally be reached on Monday-Thursday, 8am - 4 pm EST.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571)272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RP

05/14/2007

  
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SUPERVISORY PATENT EXAMINER